



# Recycling Lines

Electronic Newsletter

January 2011

Virginia Department of Environmental Quality

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DEQ's Community Involvement Initiative: The Department of Environmental Quality is dedicated to helping the public better understand DEQ's role in protecting the environment, and to involving the public more effectively in environmental decision making.

**HAPPY NEW YEAR!** Welcome to Recycling Lines. If you have suggestions on future topics for the newsletter, please send the information to Steve Coe at [steve.coe@deq.virginia.gov](mailto:steve.coe@deq.virginia.gov).

## Environmental Benefit of Electric Autos Maybe Limited Initially

According to an article in The Wall Street Journal (10/18/2010), the overall environmental benefit of all-electric vehicles (e-cars) in the first few years will most likely match the benefits currently achieved by use of hybrid vehicles. The article continues on to state that "hybrids and e-cars will produce about 30% fewer greenhouse gases than a fully gasoline-powered vehicle."

One limitation on the overall greenhouse reduction by e-cars is that the electricity used to re-charge these vehicles will most likely be generated, at least for the near future, by fossil-fueled power plants. As more power generators look to increase their "green" energy production and use, the use of e-cars will be an effective tool to reduce greenhouse gas emissions from the transportation sector.

Visit <http://online.wsj.com>.

## EPA Sets 5-year Plan

EPA has released its five-year plan on agency priorities. The plan puts emphasis on taking action on climate change, protecting waters, sustainable development, preventing pollution and enforcing environmental laws. By 2015 the EPA hopes to increase the amount of municipal solid waste reduced, reused or recycled by 22.5 billion pounds. The document also states that recycling will be an important part in land preservation and resource conservation, and in reducing the use of environmentally intensive or toxic materials.

You can review the plan at <http://www.epa.gov/ocfo/plan/plan.htm>.

EPA, in its Resource Conservation Challenge, has challenged businesses, organizations, industry, and consumers to take the first step towards a world without waste by setting a national goal of recycling 35% of America's municipal solid waste. This is a significant effort - as more products become readily available and our society stays on the go, municipal waste streams are increasing in volume.

## Did You Know?

- Seattle passed the nation's first phone book opt-out ordinance, which also requires that directory publishers pay for the cost of the city's phone book recycling program.
- Clorox Co. plans to have at least 90% of its products in recyclable primary packaging by 2013.
- The Aluminum Association estimates that aluminum can recycling has reached the 57.4% level.
- Honda Motor Co. says eight of its 14 plants in North America have reached zero-waste status, defined as sending no waste from manufacturing activities to landfills.
- A record-high 63.4% of the paper consumed in the U.S. was recovered for recycling in 2009. This amount averages out to 325 pounds for each man, woman, and child in the U.S.

## Armstrong Ceiling Tile Recycling Program

Armstrong World Industries, the nation's largest manufacturer of acoustical ceiling systems, has named S.B. Cox Recycling of Richmond, Virginia, an Armstrong Certified Construction & Demolition (C&D) Processor. As an Armstrong C&D Processor, S. B. Cox Recycling will collect mineral fiber ceiling tiles and fiberglass insulation that have been removed from construction, renovation and demolition sites. The company will then segregate and bale the discarded materials for shipment to the Armstrong ceilings plant in Marietta, Pennsylvania, where they will be used in the manufacture of new ceiling tiles. A similar agreement was recently signed with Ace Recycling in Chesterfield County.

Located at 5100 Williamsburg Avenue, S.B. Cox Recycling is a material recovery facility providing construction and demolition debris management for central Virginia. As part of its operation, the company receives, sorts and processes a wide range of non-hazardous waste materials generated during construction and demolition activities. It is a member of the U.S. Green Building Council and offers construction waste management reporting for LEED® projects. Since Armstrong began the program in 1999, it has recycled over 80,000,000 square feet of discarded ceiling tiles. This represents more than 11,000 roll-off containers full of construction waste that would have normally been taken to landfills.

## Recycling Facts

**Plastic:** 1) Five plastic bottles (PET) recycled provides enough fiber to create one square foot of carpet or enough fiber fill to fill one ski jacket. 2) Americans throw away 2.5 million plastic bottles every hour. 3) Recycling one ton of plastic bottles saves the equivalent energy usage of a two person household for one year.

**Cans:** 1) Every three months, Americans throw enough aluminum in the landfills to build our nation's entire commercial air fleet. 2) The average person has the opportunity to recycle more than 25,000 cans in a lifetime. 3) Recycling a single aluminum can saves enough energy to power a TV for three hours. 4) It requires 95% less energy and water to recycle a can than it does to create a can from virgin materials.

**Papers:** 1) Americans throw away enough office paper each year to build a 12 foot high wall from Seattle to NY (a new wall every year). 2) Making paper from recycled paper reduces the related contribution to air pollution 95%. 3) Recycling a stack of newspaper just 3 feet high saves one tree. 4) More than 37% of the fiber used to make new paper products in the U.S. comes from recycled sources.

**Glass:** 1) Glass can be recycled and re-manufactured an infinite amount of times and never wear out. 2) Making glass from recycled material cuts related water pollution by 50%. 3) Recycling just one glass jar saves enough electricity to light an 11 watt CFL bulb for 20 hours. 4) More than 28 billion glass bottles and jars end up in landfills every year -- that is the equivalent of filling up two Empire State Buildings every three weeks.

**Cardboard:** 1) Recycling cardboard only takes 75% of the energy needed to make new cardboard. 2) Recycling 1 ton of cardboard saves 46 gallons of oil. 3) Over 90% of all products shipped in the US are shipped in corrugated boxes, which totals more than 400 billion square feet of cardboard. 4) Nearly 80% of all retailers and grocers recycle their cardboard.  
*(continued in next column)*

## Happy 40th, EPA

On Dec. 2, 1970 President Richard Nixon created the Environmental Protection Agency. To celebrate its birthday, **Green for All**, a social justice and environmental organization, has launched **thankyouepa.com**. The website touts the accomplishments of the agency, and allows visitors to share them with others through social media.

The EPA itself also launched a website (<http://www.epa.gov/40th/achieve.html>) highlighting its 40 years, and a new National Research Council study will help the agency focus more on sustainability, rather than just reducing pollution. Called the "Green Book", the report is aimed at assisting the EPA in finding links among its various existing functions, while shifting its focus toward a sustainable use of resources and its connection to human health.

**Food Waste: (without paper products)** 1) Food waste can be used for composting and sold to farmers or it can be provided as a food source for local animal farms that meet federal, state and local regulations for food scrap usage. 2) Almost half of the food in the U.S. goes to waste - approximately 3,000 pounds per second. 3) Food scraps make up almost 12% of municipal solid waste generated in the U.S. 4) Many schools and businesses are starting to compost food waste on site.

**Compost: (food waste with food-soiled paper products)** 1) Food and paper waste used for food can be composted into nutrient rich soil and sold to farmers. 2) Almost half of the food in the U.S. goes to waste - approximately 3,000 pounds per second. 3) Food scraps make up almost 12% of municipal solid waste generated in the U.S. 4) Many schools and businesses are starting to compost food waste on site.

**eWaste: (electronic waste)** 1) In 2007, 82% equalling 1.8 million tons of ewaste (various electronics e.g. TVs, cell phones, computers etc) ended up in landfills. 2) In 1998, the National Safety Council study estimated about 20 million computers became obsolete within 1 year. In 2007, that number increased to 40 million. 3) Electronic waste totals approximately 2% of the waste stream in the U.S. 4) Several states have now created mandatory collection and recycling programs for electronics.

## Web Links of Interest

<http://content.usatoday.com/communities/greenhouse/post/2010/10/kid-videos-less-stuff/1> (PBS videos on waste)

<http://www.epa.gov/epawaste/nonhaz/municipal/msw99.htm> (National MSW and recycling information)

[www.afandpa.org](http://www.afandpa.org) (American Forest and Paper Association – office recycling guide)

<http://1800recycling.com> (broad range of recycling information)

[www.reuseconnection.com](http://www.reuseconnection.com) (promotes reusables and how to make things from recyclable materials)

[http://www.epa.gov/reg5rcra/wptdiv/illegal\\_dumping](http://www.epa.gov/reg5rcra/wptdiv/illegal_dumping) (EPA illegal dumping guidance and information on calculating the costs of illegal dumping)

[www.abagslife.com](http://www.abagslife.com) (searchable site for where to recycle plastic bags in Virginia)

**Late News:** According to a recent story in **Waste & Recycling News'** electronic magazine, plastic contamination exists in four of the five oceanic gyres.

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## Community Update: Augusta County Recycling News

### Goodwill:

During FY 2010, the Augusta County Service Authority (ACSA) partnered with Goodwill to collect and recycle clothing, shoes, purses, belts, caps/hats, domestic comforters, books, furniture in good condition, all computer related items including towers, desktops, notebooks, laptops, printers, scanners, copiers, electric wire, ink cartridges, small appliances, plush/stuffed animals, electronics, and assorted metal items from the Public Use Site (PUS) at the Augusta Regional Landfill.

Goodwill maintains a pod on-site and items may be dropped off any time the landfill is open. Goodwill has a representative on-site on Saturdays. During FY 2010, Goodwill recycled 68,080 pounds of material at no cost to the County of Augusta and Cities of Staunton and Waynesboro.

### Cardboard Recycling:

During FY 2010, ACSA converted one roll-off box on each side of the PUS at the Augusta Regional Landfill to a cardboard recycling box. Citizens and PUS attendants place cardboard in the box and Sonoco removes the material at no charge. During FY 2010, Sonoco recycled 57,560 pounds of material at no cost to the owner localities.

### Cycle Recycle for the Kids

Mr. Bill Blasius is a part-time Public Use Site Attendant with ACSA at the Augusta Regional Landfill. Everyone at the landfill affectionately refers to him as "Mr. Bill". Mr. Bill retired from Southern New England Telephone in 1995 and began working for the Augusta Regional Landfill in 2006.

One of Mr. Bill's hobbies is working on bicycles. "In 1997, I began collecting bicycles at the Orange County landfill in North Carolina and giving them away at a thrift shop. As a public use site attendant, I run across bicycles daily that just need a little TLC. Two - three days a week, I volunteer at the Verona Community Food Pantry. I frequently run across local kids that would love to have a bike. So, I take bikes home and fix them and take them to the Verona Community Food Pantry and give them away. It makes the kids' days. I probably gave away 60 bikes last year." says Mr. Bill.

"ACSA is very fortunate to have Mr. Bill. He takes great pride in his work and believes in recycling. He has been integral in making the cardboard recycling box and Goodwill arrangement such a success. He does a lot of great things for the community and I'm thankful he spends three days a week with us." says Mr. Greg Thomasson, Director of Solid Waste Management.

*Articles submitted by Bonnie Riedesel, Executive Director for the Central Shenandoah Planning District Commission. Questions about this information can be directed to Bonnie at 540-885-5174 or Greg Thomasson, Director of Solid Waste Management at 540-337-2857, extension 104.*

## Recycled Tire Rubber Safe and Beneficial

The October 2010 issue of ***Recycling Times*** contained a story about the advantages of using recycled rubber in new products and applications. Highlights of the article include:

- The improved function and long-lasting characteristics of recycled rubber provide for a higher rate of performance and numerous benefits that are otherwise missing from conventional products.
- Recycled rubber offers cost benefits and the added advantage of environmental stewardship.
- Using tire crumb material for turf fields can reduce sports injuries, can reduce use of fertilizers and water consumption, and can maximize traction, drainage and shock absorption.
- Recycled rubber mulch used on playgrounds will cushion a child's fall from as high as 16 feet, offering better fall protection than any other material.
- Rubber mulch is resistant to wind and water, will not fade for at least 10 years, reduces bug and rodent infestation and will not decompose or compress. It also saves on maintenance and replacement costs by remaining fresh for years.
- Rubberized asphalt features superior elasticity that resists cracking caused by traffic loads, temperature changes and shifting ground. It exhibits greater skid resistance and decreased splash and spray in wet conditions.
- Rubberized asphalt reduces road noise by an average of 4 decibels.
- Recent studies (2010 and 2009) on the effect of recycled rubber on children and the environment state:
  - Use of crumb rubber results in little, if any, exposure to toxic substances, and many of the chemicals of concern to the public are already present at relatively high levels in urban environments as a result of driving, heating and cooling systems, and regular production of household and industrial wastes.

### Recycled Tire Rubber Facts

- Recycled rubber mulch is nonflammable.
- Exposure to crumb rubber does not cause cancer.
- Ingesting dust from artificial turf that contains crumb rubber is not harmful.
- Athletes are not more susceptible to Staph or MRSA infections on synthetic turf athletic fields.
- Crumb rubber does not contain an unsafe level of lead.
- Athletic fields made of synthetic turf do not leach dangerous chemicals into the ground.
- Tires and crumb rubber products are not classified as hazardous waste.

For more information or to read the complete article, visit [http://recyclingtoday.texterity.com/recyclingtoday/201010?sub\\_id=CLIXzfp0yFF9s&folio=50#pg50](http://recyclingtoday.texterity.com/recyclingtoday/201010?sub_id=CLIXzfp0yFF9s&folio=50#pg50)